					INEERING SCIENCE, I		PAGE 1 OF 1				
				SOIL BORING LOG		 	ORAGE ACTIVITY				
SI	TE LO	CATI	ON: A	0C-42	BORING NUMBER: A	0C42-SB01					
CL	IENT:	CA	MP ST	ANLEY STORAGE ACTIVITY	CONTRACTOR: PAI	ARSONS ENGINEERING SCIENCE, INC.					
PR	OJEC	T: AE	TC DC	05068	DRILLING CONTRAC	ACTOR: JEDI					
LO	GGED	BY:	S. PEA	ARSON	REF. LOGBOOK: 736	0625					
BORING DEPTH (ft-BGL): 15.5 DRILLER: E. JONES											
ВС	RING	ELE\	/ATIO	N (ft-MSL):	DRILLING RIG: MOBILE B-61						
EA	ST C	OORD	INATE	E: 537376.29	DRILLING METHOD:	IG METHOD: 6-5/8 HOLLOW STEM AUGER/ 3-1/4" AIR CO					
NC	RTH (COOR	DINAT	E: 3286274.49	SAMPLING METHOD:	OD: SPLIT SPOON					
BE	GIN C	RILL	ING: C	03/20/01	END DRILLING: 03/	21/01					
DEPTH (feet)	SAMPLE RECOVERY	ANALYTICAL SAMPLE	(Wdd) OId	LITHOLOGIC DESCRIPT	ION	GRAPHIC LOG	COMMENTS				
	1.6/2		0	CLAY, some silt, 10YR 3/2, very dark grayisl damp-moist, soft, plastic.	n brown,		split-spoon (push)				
2-	1/2		0	As above (fill).			² split-spoon (push)				
4-	-/-			As above, moist, soft, abundant small rock	(1/8") fragments.		4 split-spoon (push)				
	1.2/2		0		**************************************		_				
6-	0.8/2	X	0	CLAY/LIMESTONE fragment, damp, clay is s looks like fill material but no trash present.	oft and plastic,		split-spoon (push) Sample: AOC42-SB01 (6.5-7')				
8-	0/1			No recovery. Refusal at 9'.			8 split-spoon (push)				
10-	20/4			LIMESTONE (WACKESTONE), 2.5YR 8/3, parallel fairly hard, somewhat weathered, fossilifero (turritella), pelecypods (1/2"), iron staining fractures.	ous, gastropod		air core				
12-	3.9/4	٠	0	"china hat" forams.			1 2				
4-				As above, 2.5YR 5/1, gray, "china hat" foral As above, some fossil assemblage including forams, core is weathered and breaks easil	"china hat"		1 4				
	2/2.5	×	0.8	*			Sample: AOC42-SB01 (14.5-15				
6-				TOTAL DEPTH = 15.5 FEET			16				
18-							1 8				
20-					· · · · · · · · · · · · · · · · · · ·		20				

PARSONS ENGINEERING SCIENCE, INC. PAGE 1 OF 1 SOIL BORING LOG CAMP STANLEY STORAGE ACTIVITY SITE LOCATION: AOC-42 BORING NUMBER: AOC42-SB03 CLIENT: CAMP STANLEY STORAGE ACTIVITY CONTRACTOR: PARSONS ENGINEERING SCIENCE, INC. PROJECT: AETC D05068 DRILLING CONTRACTOR: JEDI LOGGED BY: S. PEARSON REF. LOGBOOK: 736625 BORING DEPTH (ft-BGL): 14.1 DRILLER: E. JONES BORING ELEVATION (ft-MSL): DRILLING RIG: MOBILE B-61 EAST COORDINATE: 537400.93 DRILLING METHOD: 6-5/8 HOLLOW STEM AUGER/3-1/4" AIR CORE NORTH COORDINATE: 3286258.26 SAMPLING METHOD: SPLIT SPOON BEGIN DRILLING: 03/21/01 END DRILLING: 03/21/01 GRAPHIC ANALYTICA SAMPLE PID (DDE) > 0 C 0 SAMPLE RECOVERY HLEDO LITHOLOGIC DESCRIPTION COMMENTS CLAY, silt, 2.5YR 3/1 very dark gray, some fine limestone gravel, root material, damp, medium, stiff, plastic. 1.8/2 0 split-spoon (push) 2 split-spoon (push) CLAY, little silt, caliche and fine gravel, shell fragments, 0 limestone parent material, 10YR 4/4 dark yellowish-brown, 1.8/2 increasing caliche/marl content. 1.6/2 0 6-CHALKY MARL, 5Y 8/1 white, clayey, moist, plastic, some portions have a flour consistency, becomes more firm 0 2/2 towards 6'. Sample: AOC42-SB03 (8.5-9') As above, moist-wet, refusal at 9'. 0.7/1 Overdrill, driller reports yellow limestone (wackestone). 0/1 10 0.1 LIMESTONE (wackestone), 2.5Y 7/3 pale yellow, damp, hard, 0.5 weathered limestone, less pelecypods (1/4"), dark organic inclusions. Sample: 0.7 A0C42-SB03 (11-12.5'), slight 0.3 hydrocarbon odor 12-3.9/5 0.2 0.1 As above, no detectable hydrocarbon odor as above, pelecypods (oysters) that are small (1/4-1/2"), root material 0.2 in fractures at 14', damp, hard, massive. 0.1 TOTAL DEPTH = 14.1 FEET 16-18-48

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S	ITE I (DCAT:	ION: A	SOIL BORDIS LOS 0C-42	CAMP STANLEY STORAGE ACTIVITY BORING NUMBER: A0C42-SB04						
									SERVICE THE		
			·····	ANLEY STORAGE ACTIVITY	CONTRACTOR: PARSONS ENGINEERING SCIENCE, INC.						
			TC DC	ARSON	DRILLING CONTRACTOR: JEDI REF. LOGBOOK: 736625						
<u> </u>				:-BGL): 15	DRILLER: E. JO						
				N (ft-MSL):	DRILLING RIG: MOBILE B-61						
				E: 537388.80		RILLING METHOD: 6-5/8" HOLLOW STEM AUGER/3-1/4" AIR					
				E: 3286252.32		NG METHOD: SPLIT SPOON					
BE	EGIN (DRILL	ING: (03/19/01		DRILLING: 03/19/01					
DEPTH (feet)	SAMPLE RECOVERY	ANALYTICAL SAMPLE	PTO (mort)	LITHOLOGIC DESCRIPT	ION		GRAPHIC	3	COMMENTS		
	1.9/2		0	CLAY, silty, 10YR 3/4 brown, moist, soft, pla root material.	stic, abundant						
2-	1.0/2			CLAY, 10YR 3/1 very dark gray, damp, mediu plastic.	ım stiff, slightly				split-spoon (push)		
	1.6/2		0	CLAY, 1/16" gravel, moist, stiff, 10YR 3/4 da angular limestone fragments and caliche no					split-spoon (push)		
4-	0.9/2		0					4	split-spoon (push)		
6-	1.7/2		0	CHALKY MARL, 10YR 8/6 yellow, soft, brittle	, some clayey			8	Sample: A0C42-SB04 (7-7.5')		
8-				(calcareous) zones.				8	split-spoon (hammer)		
10-	0.8/2		0	Refusal at 9', overdrill to 10', rock at 9.8'.							
12-	5/5		0	LIMESTONE (WACKESTONE), massive, dry, hpale yellow, pitted appearance from 13-13.6 fossiliferous with "china hat" forams, small p	', becomes			12			
14-		×		LIMESTONE (MUDSTONE-WACKESTONE), 5% forams and 1/4" pelecypod shell fragments, above with color changes.				-14	Sample: AOC42-SB04 (14-14.5')		
16-				TOTAL DEPTH = 15 FEET				-16			
18-								-18			
20-											

ENT: JECT: GED B ING DI ING EI T COO TH CO	CAMP AETC BY: S. F DEPTH ELEVAT DORDINA DORDINA RILLING	SOL BORING LOS N: AOC-42 STANLEY STORAGE ACTIVITY DO5068 PEARSON (ft-BGL): 16 TION (ft-MSL): ATE: 537361.55 NATE: 3286240.05 G: 03/21/01 LITHOLOGIC DESC CLAY and organic material, (Peak) 10 fine gravel, soft, plastic, moist.	BORING NUMBE CONTRACTOR: DRILLING CONT REF. LOGBOOK: DRILLER: E. JON DRILLING RIG: DRILLING METH SAMPLING METH END DRILLING:	R: AOC PARS RACTO 73662 NES MOBILE IOD: 6-	42-SB0 ONS ENC OR: JEDI 65 E B-61 -5/8" HC	GINI DLLC	RAGE ACTIVITY EERING SCIENCE, INC. DW STEM AUGER/3-1/4" AIR COF
JECT:	CAMP AETC BY: S. F DEPTH ELEVAT ORDINA DORDINA	STANLEY STORAGE ACTIVITY D05068 PEARSON (ft-BGL): 16 TION (ft-MSL): ATE: 537361.55 NATE: 3286240.05 G: 03/21/01 LITHOLOGIC DESC CLAY and organic material, (Peak) 10 fine gravel, soft, plastic, moist.	CONTRACTOR: DRILLING CONT REF. LOGBOOK: DRILLER: E. JON DRILLING RIG: DRILLING METH SAMPLING METH END DRILLING: CRIPTION	PARS RACTO 73662 NES MOBILE IOD: 6- HOD: S 03/21/	ONS ENG DR: JEDI 25 E B-61 -5/8" HC PLIT SPO	GINI	DW STEM AUGER/3-1/4" AIR COF
JECT: GED B ING DI ING EI T COO TH CO	AETC BY: S. F DEPTH ELEVAT ORDINA DORDINA RILLING	E D05068 PEARSON (ft-BGL): 16 TION (ft-MSL): ATE: 537361.55 NATE: 3286240.05 G: 03/21/01 LITHOLOGIC DESC CLAY and organic material, (Peak) 10 fine gravel, soft, plastic, moist.	DRILLING CONT REF. LOGBOOK: DRILLER: E. JON DRILLING RIG: N DRILLING METH SAMPLING METH END DRILLING: CRIPTION	73662 73662 NES MOBILE IOD: 6- HOD: S 03/21/	DR: JEDI 25 E B-61 -5/8" HC PLIT SPO	OLL C	DW STEM AUGER/3-1/4" AIR COF
GED B ING DI ING EI T COO TH CO IN DR:	BY: S. F DEPTH ELEVAT ORDINA DORDINA RILLING	PEARSON (ft-BGL): 16 TION (ft-MSL): ATE: 537361.55 NATE: 3286240.05 G: 03/21/01 LITHOLOGIC DESC CLAY and organic material, (Peak) 10 fine gravel, soft, plastic, moist.	REF. LOGBOOK: DRILLER: E. JON DRILLING RIG: DRILLING METH SAMPLING METH END DRILLING: CRIPTION	73662 NES MOBILE IOD: 6- HOD: SI 03/21/	E B-61 -5/8" HC PLIT SP(OLLO OON	
TH COOTH CONTROL OF THE COOTH	DEPTH ELEVATOR DINA DORDINA DO	(ft-BGL): 16 TION (ft-MSL): ATE: 537361.55 NATE: 3286240.05 G: 03/21/01 LITHOLOGIC DESC CLAY and organic material, (Peak) 10 fine gravel, soft, plastic, moist.	DRILLER: E. JON DRILLING RIG: DRILLING METH SAMPLING METH END DRILLING: CRIPTION	NES MOBILE IOD: 6- HOD: SI 03/21/	E B-61 -5/8" HC PLIT SP	0 0 N	
TH COOTH CONTROL OF THE CONTROL OF THE COOKER OF THE COOKE	SAMPLE SA	TION (ft-MSL): ATE: 537361.55 NATE: 3286240.05 G: 03/21/01 LITHOLOGIC DESC CLAY and organic material, (Peak) 10 fine gravel, soft, plastic, moist.	DRILLING RIG: DRILLING METH SAMPLING METH END DRILLING: CRIPTION	MOBILE 10D: 6- 10D: S 03/21/	-5/8" HC PLIT SPO	0 0 N	
TH COOTH CONTROL OF THE COOTH COOTH COOTH COOTH COOTH COOTH COOTH COOTH CO	ORDINA DORDIN RILLING LID LID LID LID LID LID LID LID LID LID	ATE: 537361.55 NATE: 3286240.05 G: 03/21/01 LITHOLOGIC DESC CLAY and organic material, (Peak) 10 fine gravel, soft, plastic, moist.	DRILLING METH SAMPLING METH END DRILLING: CRIPTION	OD: 6- 10D: SI 03/21/	-5/8" HC PLIT SPO	0 0 N	
TH CO IN DR:	VANAL LEVAL PROPERTY OF THE PARTY OF THE PAR	LITHOLOGIC DESC	SAMPLING MET- END DRILLING: CRIPTION	10D: S 03/21/	PLIT SPO	0 0 N	
BECOVERY AMAIYTEEN 18/2	SAMPLE	LITHOLOGIC DESC CLAY and organic material, (Peak) 10 fine gravel, soft, plastic, moist.	END DRILLING:	03/21/	′ 01		
ECOVERY ANALYTICAL	SAMPLE	CLAY and organic material, (Peak) 10 fine gravel, soft, plastic, moist.	CRIPTION		т т		COMMENTS
8/2		CLAY and organic material, (Peak) 10 fine gravel, soft, plastic, moist.			GRAPHI LOG		COMMENTS
	0	fine gravel, soft, plastic, moist.	OYR 2/1 black, trace of				
6/2		İ		CI			split-spoon (push)
	0	CLAY, little fine gravel, 7.5YR 4/4 br plastic, damp, caliche nodules at 3.5'				-2	split-spoon (push)
_ / _		As above, increasing caliche and lime	estone fragments.			4	split-spoon (push)
3/2	록 °					1 -	Sample: A0C42-SB05 (5-5.5')
0/5		No recovery – weathered marly limes	stone.			-8 -10	Air core
5/3		yellow, weathered, pitted appearanc forams and small pelecypods.				-12 - -14	Sample: AOC42-SB05 (15-16')
		TOTAL DEPTH = 16 FEET				-18 -18	
			yellow, weathered, pitted appearanc forams and small pelecypods.	5/3 0	yellow, weathered, pitted appearance, quite fossiliferous with forams and small pelecypods. 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	yellow, weathered, pitted appearance, quite fossiliferous with forams and small pelecypods. TOTAL DEPTH = 16 FEET	yellow, weathered, pitted appearance, quite fossiliferous with forams and small pelecypods.

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SOIL BORING LOG SITE LOCATION: AOC-42 BORIN						CAMP STANLEY STORAGE ACTIVITY								
					BORING NUMBER: AOC42-SB07									
	CLIENT: CAMP STANLEY STORAGE ACTIVITY CONTRACTOR PROJECT: AETC D05068 DRILLING CO													
							PRILLING CONTRACTOR: JEDI							
						REF. LOGBOOK: 738625 DRILLER: E. JONES								
						+	11 6	D61						
	.,			E: 537410.07	DRILLING RIG: MOBILE B-61 DRILLING METHOD: 6-5/8" HOLLOW STEM AUGER/3-1/4" AIR C									
				TE: 3286216.05	SAMPLING METHOD: SPLIT SPOON									
				03/19/01		END DRILLING: 03/19/01								
-	SAMPLE RECOVERY		OId (aod)				USCS	63		COMMENTS				
	1.6/2		0	CLAY, silty and gravelly, 7.5YR 4/3 brown, o (1/8-1/4"), limestone gravel, moist, soft, pla						Split-spoon UXO clearance.				
2-	1.8/2		0	CLAY, 7.5YR 4/3 brown, grading contact wingravel content, some silt, trace of caliche, moist, plastic.			CL		-2	split-spoon UXO clearance				
4	1.7/2	×	0	CLAY, 5YR 8/8 reddish-yellow, soft, wet, hy LIMESTONE MARL, 2.5YR 8/4 pale yellow, gi				1	4	Sample: AOC42-SB07 (4-4.5') VOC's, metals, explosives				
6-	1.772		0	soft, brittle (powdery), chalky, damp, no od As above, chalky white marl.					-B	Did not pick up VOC's on PID, check calibration, hydrocarbon odor only				
	1.25/2		0					主主	-	4-4.25'.				
8-				Refusal with spoon, overdrill to 8'.				$\times \times$	٩					
١				As above, limestone marl.		_/-	┼-		Ĭ	Refusal at 8.3'.				
	0.3/2		0	Refusaî, overdrill to 10'.										
10-	0/2		0	MARLY LIMESTONE, weathered, no recovery cuttings.	, log off of				10	Air core				
12-	00/			LIMESTONE (WACKESTONE), 2.5Y 8/2 pale	vellow			X	-12					
14-	2.2/ 2.2		0	fossiliferous, small "china hat" forams, soft a weathered, dry.	•				-14					
		×		TOTAL DEPTH = 14.2 FEET					-	Sample: AOC42-SB07 (14.5-15')				
16-								:	-16					
18-									-18 -					
L_{0S}	L	Ц	L	<u> </u>		ļ	<u> </u>	<u> </u>	-50	· · · · · · · · · · · · · · · · · · ·				

				SOIL BORING LOG	CAMP			STO	RAGE ACTIVITY	
SITE LOCATION: AOC-42					BORING NUMBER: A0C42-SB08					
Cl	.IENT:	CAI	MP S1	ANLEY STORAGE ACTIVITY	CONTRACTOR: PARSONS ENGINEERING SCIENCE, INC.					
	ROJEC				DRILLING CONTRACTOR: JEDI					
				ARSON	REF. LOGBOOK: 736625					
В	DRING	DEP1	TH (f	t-BGL): 19.2	DRILLER: E. JO	NES				
В	DRING	ELE	/ATIC	ON (ft-MSL):	DRILLING RIG:	MOBI	LE B-61			
E	AST C	OORD	INAT	E: 537391.21	DRILLING METH	10D: (3-5/8" H	OLL	DW STEM AUGER/3-1/4" AIR COR	
N	ORTH (COOR	DINA	TE: 3286205.71	SAMPLING MET					
BI	EGIN [RILL	ING:	03/21/01	END DRILLING:					
DEPTH (feet)	SAMPLE RECOVERY	ANALYTICAL SAMPLE	(MOO) O.L.d	LITHOLOGIC DESCRIPT	ION		GRAPHIC 106		COMMENTS	
2-	1.7/2		0	CLAY AND GRAVEL (FILL), stiff, plastic, dan fine to cobble-sized, 7.5YR 4/4 brown, large start at 1' bgs.			CL	-2	split-spoon (push)	
4-	1.9/2		0	CLAY, some silt, 1/8" caliche and limestone g brown, medium stiff, plastic, damp, increasing depth.				4	split-spoon (push)	
-	1.8/2		0	MADI V CLAV 10VD 8/0 very cole brown				ļ		
				MARLY CLAY, 10YR 8/2 very pale brown.			CH	1		
6-				CLAY, some silt, caliche and limestone grave		_/		₽ ⁶	split-spoon (push)	
	1.7/2	X	0	MARLY CLAY, 7.5YR 5/4 and 10YR 8/2, mottly very pale brown, moist, medium stiff, plastic, at other borings, trace of foram shells.					Sample: AOC42-SB08 (6.5-7')	
8-	2/2		0	CLAY, 7.5YR 5/4, brown, mottled with caliche nodules (3/4") at 9.5', damp, stiff, very plast						
12-	0/2.5			No recovery.				10	Air core	
14-	2/2		0	CLAY AND CHALKY MARL, 10YR 7/3 very pale plastic from 12.5-13', powdered and brittle 13 13.5-14.5'.		:		14	split-spoon (push)	
16-	1.3/2		0	As above, starting to see limestone fragmen	ts from 18-16.5'.			18	split-spoon (push)	
-	1/1	X	0	As above with more limestone fragments, ref	usal at 17.5°.				split-spoon (hammer) Sample:	
18-	1.7/ 1.7		0	LIMESTONE (WACKESTONE), 2.5YR 8/2 pale weathered with orange staining (2.5Y 8/8) a planes, chertiful limestone from 17-19°, dry, m	along basal			-1 8	AOC42-SB08 (16.5-17.5') Air core	
20-				LIMESTONE (PACKSTONE), small vugs (1/4") worm tubes or moldic porosity, dry, hard, may pelecypod (oyster shells) 1/4-1/2".		1		20		
				TOTAL DERTH - 10.2 EEET						

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<u>_</u>				SOIL BORING LOS	CAMP STANLEY STORAGE ACTIVITY						
_S	ITE LO	DCAT:	ION: A	AOC-42	BORING NUMBER: AOC42-SB09						
	LIENT	: CA	MP ST	TANLEY STORAGE ACTIVITY	CONTRACTOR: PARSONS ENGINEERING SCIENCE, INC.						
	ROJEC				DRILLING CONTRACTOR: JEDI						
LOGGED BY: S. PEARSON REF. LOGBOOK 7386											
—	BORING DEPTH (ft-BGL): 14.5 DRILLER: E. JONES										
				DN (ft-MSL):	DRILLING RIG:						
E	AST C	OORD	INAT	E: 537348.58					OW STEM AUGER/3-1/4" AIR COR		
				TE: 3286210.76	SAMPLING MET	HOD: 9	SPLIT SI	2001	N		
_	-y			03/21/01	END DRILLING:	03/2	/01				
DEPTH (feet)	SAMPLE	ANALYTICAL	OIG (mod)	LITHOLOGIC DESCRIPT	ION		GRAPHIC 1 OG		COMMENTS		
	2/2	. *	0	CLAY, organic topsoil (peat), 7.5YR 2.5/1 bis organic soil, moist, slightly plastic, soft, abur plant material, small fine gravel inclusions.		-			split-spoon (push)		
2-	2/2		0	CLAY, little fine gravel, 2.5YR 4/2 dark gray medium stiff, plastic.	ish brown, damp,			2	split-spoon (push)		
4-	1.9/2		0					4	split-spoon (push)		
6-	1.4/2		0	CLAY AND LIMESTONE GRAVEL, 7.5YR 4/6 s angular limestone fragments, possibly fill mat enery stream deposit.				8	split-spoon (push)		
8-	1.4/	\	0	LIMESTONE GRAVEL AND CLAY, as above wi more angular gravel, refusal at 9.5'.	th significantly			8	Sample: AOC42-SB09 (9-9.5')		
10-	1 1			LIMESTONE (WACKESTONE), 10YR 8/1 white, massive, poor recovery, rubblized core return				10	Air core		
12-	0.6/ 2.5		0	hat" forams.				-12	Core block.		
14-	1.5/ 2.5	X	0					-14	Sample: AOC42-SB09 (13.5-14.5')		
	$\vdash \vdash$			TOTAL DEPTH = 14.5 FEET			. 				
16-								-18			
18-								- -18			
,,								-			
 20-								L_{20}	****		